AMENDMENTS TO THE SPECIFICATION

Beginning on a new page immediately before the claims, please replace the existing sequence listing with the attached substitute sequence listing. Please renumber subsequent pages accordingly.

Please replace the paragraph [0184] on page 57 with the following amended paragraph:

[0184] Table 5: Sequences of *Cis*-repressive RNA Sequences, Loop, RBS, and crRNA Constructs. All sequences are shown 5' to 3' and represented in the form of their corresponding DNA sequences as used in the cloning steps.

Cis-Repressive Sequence	Sequence ID NO:
C GGACGCACTGACCGAATTC	SEQ ID NO: 3
crRL CTACCTTTCTCCTCTTTAAT	SEQ ID NO: 4
crRB TTCTCTAGTCCTCCTTAT	SEQ ID NO: 5
crR7 CTACCTTTCTCCTCTAGGA	SEQ ID NO: 6
crR10 CTACCTATCTGCTCTTGAA	SEQ ID NO: 7
crR12 CTACCATTCACCTCTTGGA	SEQ ID NO: 8
crR22 CTACCATTCACCTGGA	SEQ ID NO: 9
Loop TTTGGGT	~~SEQ ID NO: 10~~
RBS ATTAAAGAGGAGAAA	SEQ ID NO: [[11]] 10
Sequence of *Cis*-Repressive RNA Constructs	
C GGACGCACTGACCGAATTCATTAAAGAGGAGAAA GGTACCATG	SEQ ID NO: [[12]] 11
crRL CTACCTTTCTCCTCTTTAATTTTGGGTATTAAAGAG GAGAAAGGTACCATG	SEQ ID NO: [[13]] 12
crRB CTCTAGTCCTCCTTATTTTGGGTATTAAAGAGGAG AAAGGTACCATG	SEQ ID NO: [[14]] 13
crR7 CTACCTTTCTCCTCTAGGATTTGGGTATTAAAGAG GAGAAAGGTACCATG	SEQ ID NO: [[15]] 14
crR10 CTACCTATCTGCTCTTGAATTTGGGTATTAAAGAG GAGAAAGGTACCATG	SEQ ID NO: [[16]] 15
crR12 CTACCATTCACCTCTTGGATTTGGGTATTAAAGAG GAGAAAGGTACCATG	SEQ ID NO: [[17]] 16
~~cr22~~ crR22 CTACCATTCACCTCTTGGATTTGGGTATTAAAGAG GAGAAAGGTACCATG	SEQ ID NO: [[18]] 17

Please replace the paragraph [0194] on page 60 with the following amended paragraph:

[0194] Table 6: Sequences of *Trans*-activating RNA Constructs. 5'-st represents the 5' stabilizer element inserted in front of taR12. All sequences are shown 5' to 3' and represented in the form of their corresponding DNA sequences as used in the cloning steps.

Construct/Sequence		Sequence ID NO
taRL	ACACCCAAATTAAAGAGGAGAAAGGTAGTGGTGGTTAATGAAA-ATTAACTTACTACTACCTTTTCTTAGA	SEQ ID NO: [[19]] 18
taRB	ACGCCCAATAAGGAGGATAGAGTGGTGGTTAATGAAAATTAAC-TTACTACTTAGTTTTAGA	SEQ ID NO: [[20]] 19
taR7	ACACCCAAATCCTAGGGAGAATGGTAGTGGTGGTTAATGAAAA-TTAACTTACTACTACTTTTTCATAGA	SEQ ID NO: [[21]] 20
taR10	ACACCCAAATTATGAGCAGATTGGTAGTGGTGGTTAATGAAAA-TTAACTTACTACTACTTTCTTAGA	SEQ ID NO: [[22]] 21
taR12	ACCCAAATCCAGGAGGTGATTGGTAGTGGTGGTTAATGAAAAT-TAACTTACTACTACCATATATCTCTAGA	SEQ ID NO: [[23]] 22
taR12A	ACCCAAATCCAGGAGGTGAATGGTAGTGGTGGTTAATGAAAAT-TAACTTACTACTACCATATATCTCTAGA	SEQ ID NO: [[24]] 23
taR12B	ACCCAAATCCAAGAGGTGATTGGTAGTGGTGGTTAATGAAAAT-TAACTTACTACTACCATATATCTCTAGA	SEQ ID NO: [[25]] 24
taR12C	ACCCAAATCCAAAGAGGTGAATGGTAAGTGGGTGGTTAATGAA-AATTAACTTACTACTACCATATATTCTCTAAGA	SEQ ID NO: [[26]] 25
taRU112	ACCCAAATCCAGGAGGTGATTGGTAGTGGTGGTTAATGAAAAT-TAACTTACTAAAATCGGACATCTCTAGA	SEQ ID NO: [[27]] 26
taRU212	ACCCAAATCCAGGAGGTGATTGGTAGTGGTGGTTAATGAAAAT-TAACTTTACTACTTACGCGTCATATCTCTAGA	SEQ ID NO: [[28]] 27
taRU312	ACCCAAATCCAGGAGGTGATTGGTAGTGGTGGTTAATGAAAAT-TAACTTACTACGATCAGTGATCTCTAGA	SEQ ID NO: [[29]] 28
taR22	ACCCAAATCCAGGTGTATGGTAGTGGTGGTTAATGAAAATTAAC TTACTACATTCACCTCGATCTAGA	SEQ ID NO: [[30]] 29
5'-st	GGGUCCGCUAUGAGGUAAAGUGUCAUAGCGGGCCC	SEQ ID NO: [[31]] 30

Please replace the paragraph [0199] on page 61 with the following amended paragraph:

[0199] Step 2: Complex formation. For each of the riboregulator pairs, six samples with different molar ratios of taRNA-crRNA were prepared. The concentrations of taRNA in the six samples were: 1.0 /μM, 0.50 μM, 0.25 μM, 0.13 μM, 0.06 μM, and 0.03 μM. The concentrations of crRNA were 0.20 μM and 0.01 μM for cognate (e.g., taR12-crR12) and non-cognate (e.g., taR10-crR12) pairs, respectively. Each of the samples contained 10 μM Tris (pH=7), 10

μM $MgCl_2$, 1 pM KCl, lU of RNAse inhibitor (Applied BioSystems), and 0.4 pM of Cy5-labeled reverse transcription primer (5'-Cy5-CTTCACCCTCTCCACTGAC-3') (SEQ ID NO:[[32]] 31). The reverse transcription primer was designed to anneal the crRNA approximately 80 nucleotides downstream of the *gfpmut3b* start codon and contained the Cy-5 label at the 5' end. The samples were given 20 minutes to equilibrate at 37°C.

Please replace the paragraph [0209] on page 64 with the following amended paragraph:

[0209] Table 7: Real-competitive PCR Assay Design.

Assay: 16SrRNA	PCR Primer 1:	5'-ACGTTGGATGGGAGACTGCCAGTGATAAAC (SEQ ID NO: [[33]] 32)
	PCR Primer 2:	5'-ACGTTGGATGTGTAGCCCTGGTCGTAAGG (SEQ ID NO: [[34]] 33)
	Extension Primer:	5'-GAGGAAGGTGGGGATGACGT (SEQ ID NO: [[36]] 34)
	Terminator Mix:	CGT
	Competitor Seq:	5'-TGTAGCCCTGGTCGTAAGGGCCATGATG-ACTTCACGTCATCCCCACCTTCCTCCAG-TTTATCACTGGCAGTCTCC (SEQ ID NO: [[37]] 35)
Assay: crRNA	PCR Primer 1:	5'-ACGTTGGATGGGAGAGGGTGAAGGTGATGC (SEQ ID NO: [[38]] 36)
	PCR Primer 2:	5'-ACGTTGGAAGAGGTAGTTTTCCAGTAGTGC (SEQ ID NO: [[39]] 37)
	Extension Primer:	5'-CATACGGAAAACTTACCCTT (SEQ ID NO: [[40]] 38)
	Terminator Mix:	ACT
	Competitor Seq:	5'-TGTAGCCCTGGTCGTAAGGGCCATGATGAC-TTCACGTCATCCCCACCTTCCTCCAGTTTAT-CACTGGCAGTCTCC (SEQ ID NO: [[41]] 39)
Assay: taRNA	PCR Primer 1:	5'-ACGTTGGATGTTTCTCCATAGTCGACACCC (SEQ ID NO: [[42]] 40)
	PCR Primer 2:	5'-ACGTTGGATGCTGCCGCCAGGCATCTAGAG (SEQ ID NO: [[43]] 41)
	Extension Primer:	5'-GAAAATTAACTTACTACTACC (SEQ ID NO: [[44]] 42)
	Terminator Mix:	CGT
	Competitor Seq:	Plasmid construct taR 12 (for taR L,10) or Plasmid construct taRL (for taR 12)

Please replace the paragraph [0211] on page 65 with the following amended paragraph:

[0211] T7 = 5'-TAATACGACTCACTATAGG-3' (SEQ ID NO: [[45]] 43). The same set of primers could be used for all crRNA variants because they all contained the same 5'and 3' ends. Due to variable 5' sequences on the taRNA constructs, unique primers were designed for each PCR amplification. The same reverse primer was used in taRNA PCR reactions.

Construct	PCR Primer (forward)
crR7, 10, 12	5'-ATTACTCGAG-T7-TCAGCAGGACGCACTGACC (SEQ ID NO: [[46]] 44)
taR7	5'-ATTACTCGAG-T7-ACCCAAATCCTAGCGGAG (SEQ ID NO: [[47]] 45)
taR10	5'-ATTACTCGAG-T7-ACCCAAATTCATGAGCAGATTG (SEQ ID NO: [[48]] 46)
taR12	5'-ATTACTCGAG-T7-ACCCAAATCCAGGAGGTG (SEQ ID NO: [[49]] 47)

Construct	PCR Primer (reverse)
crR7, 10, 12	5'-GTCCAAGCTTTTATTTGTATAGTTCATCCA (SEQ ID NO: [[50]] 48)
taR7	
taR10	5'-ACCACCGCGCTACTG (SEQ ID NO: [[51]] 49)
taR12	